

U.S. Serial No. 10/644,564  
Amendment Dated May 20, 2005  
Response To Office Action Dated March 21, 2005

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## REMARKS

The pending application was filed on August 15, 2003 with claims 1-17. The Examiner issued a Non-Final Office Action dated November 1, 2004 rejecting claims 1-17. A response was filed in which claims 1-8, 12 and 16 were canceled and arguments were presented differentiating the claimed invention from the cited references. The Examiner issued a Final Office Action dated March 21, 2005 in which the Examiner rejected claims 9-11, 13-15 and 17. In particular, the Examiner rejected claims 15 and 17 under 35 U.S.C. §112, first paragraph, and rejected claims 9-11, 13-15 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Japanese Patent Application 10-196941 in view of PCT Published Application WO/98/25084 and *Munro*.

Claims 9-11, 13-15, and 17 remain pending in the patent application. Claims 1-8, 12, and 16 have been canceled without prejudice. In view of the arguments set forth below, claims 9-11, 13-15, and 17 are allowable, and the Examiner is respectfully requested to withdraw the rejections and issue a timely Notice of Allowance.

### I. DRAWINGS

The Examiner objected to the drawings and stated that the drawings failed to comply with 37 CFR 1.84(p)(5) because the C-stage shown in Figure 5 is not discussed. The Examiner stated that Applicant's replacement sheet eliminating the C-stage does not rectify the situation as the line for the C-stage would still occur, and it remains unclear as to where

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or how the fuel is injected for the "C-stage." The line in the attached Replacement Sheet, Figure 5, that correlates with the previously identified "C-Stage" has been removed. Whether or not the C-stage occurs does not impact the enablement of the invention, or any other aspect of the invention. Thus, the Examiner is respectfully requested to withdraw the objection.

## II. CLAIMS 15 AND 17 REJECTED UNDER 35 U.S.C. §112, FIRST PARAGRAPH

The Examiner rejected claims 15 and 17 under 35 U.S.C. §112, first paragraph as failing to comply with the enablement requirement. The Examiner argued that the claims include subject matter that was not described in the specification in such a way as to enable one skilled in the art to make or use the invention. In particular, the Examiner argued that the specification states that the interface is reduced between fuel and unfueled regions; however, a baseline configuration is not provided for in the specification. The Examiner concluded that it is not clear what type of prior art configuration is being compared to the invention such that the claimed reduction can occur.

The undersigned representative respectfully disagrees that claims 15-17 are not properly enabled. 35 U.S.C. §112, first paragraph states that "[t]he specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact term as to enable any person skilled in the art to which it pertains . . . to make and use the same . . ." (emphasis added). The Specification of the

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instant invention, as claimed in claims 15-17, describes the invention in sufficient detail to enable one of ordinary skill in the art to make and use the invention. The Applicant bears no responsibility for describing the state of the prior art as the prior art is that state of knowledge of one of ordinary skill in the art. Rather, the Applicant is responsible for describing the invention to such an extent that one of ordinary skill in the art may make or use the invention. The Specification describes the invention in clear, concise, and exact terms that enable one of ordinary skill in the art to make and use the invention. In addition, claim 15 has been amended. In particular, the phrase "reducing a size of an interface between fueled and unfueled regions in a fuel system" has been removed from claim 15. Therefore, the invention, as claimed in claims 15 and 17 is enabled, and the Examiner is respectfully requested to withdraw the rejection.

### **III. REJECTION OF CLAIMS 9-11, 13-15, AND 17 UNDER 35 U.S.C. §103(a)**

The Examiner rejected claims 9-11, 13-15, and 17 under 35 U.S.C. §103(a) as being unpatentable over Japanese Patent Application 10-196941 in view of PCT Published Application WO/98/25084 and *Munro*. The Examiner stated that the Japanese Patent Application 10-196941 discloses aspects of the claimed invention including a pilot burner but only discloses using six premixing nozzles rather than eight. The Examiner further stated that the PCT Published Application WO/98/25084 discloses using eight premixing nozzles. The Examiner argued that it would have been obvious to one of ordinary skill in the art to

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apply the staging concept of Japanese Patent Application 10-196941 to a premixing combustor with more burners. The Examiner also argued that *Munro* discloses premix nozzles positioned in a circle and collected in pairs. The Examiner concluded that it would have been obvious to one of ordinary skill in the art to provide burners in pairs, as disclosed in *Munro*, with the disclosure of Japanese Patent Application 10-196941.

The undersigned representative respectfully disagrees that the above-mentioned references render claims 9-11, 13-15, and 17 obvious and unpatentable. The invention described in PCT Published Application WO/98/25084 is owned by the same owner of the instant patent application, and 35 U.S.C. §103(c) provides that

"[s]ubject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person."

Thus, PCT Published Application WO/98/25084 may not be used to reject the pending claims. Therefore, for at least this reason, the Examiner is respectfully requested to withdraw the rejection.

In addition, the desirability of the combination of the cited references is not suggested in any of references. "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." MPEP § 2143.01 [2100-131] citing *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). The Japanese Patent Application 10-196941 does not disclose first

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and second injector assemblies formed from four injectors forming a ring around a center pilot, and thus does not disclose the claimed invention. Rather, the Japanese Patent Application 10-196941 discloses various stages of staged fuel operation but does not disclose the claimed configuration that is able to reduce CO emissions by up to 50% over prior art configurations, such as the PCT Published Application WO/98/25084. Rather, the Japanese Patent Application 10-196941 only discloses conventional fuel staging. The Japanese Patent Application 10-196941 does not disclose fueling alternate pairs of fuel nozzles for minimizing the interface between fueled and unfueled regions.

*Munro* discloses a stage fuel assembly formed from twenty injectors collected into ten pairs. Such a configuration does not enjoy the efficiencies enjoyed by the claimed invention. Rather, *Munro* is the equivalent of ten injectors capable of alternating fuel staging operation. Such operation is similar to operation of the device disclosed in PCT Published Application WO/98/25084. In comparison, the claimed configuration is able to reduce CO emissions by up to 50% over prior art configurations, such as the PCT Published Application WO/98/25084. Thus, the claimed configuration enjoys a similar degree of efficiency with respect to the system disclosed in *Munro*. With such a degree of improvement over the cited prior art, one cannot conclude that the combination of *Munro* with the Japanese Patent Application 10-196941 yields the claimed invention. Rather, the claimed invention is clearly nonobvious in comparison with *Munro* in combination with the Japanese Patent Application

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10-196941. Therefore, the Examiner is respectfully requested to withdraw the rejection and issue a Notice of Allowance.

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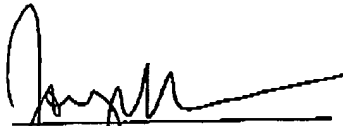
### CONCLUSION

For at least the reasons given above, claims 9-11, 13-15 and 17 define patentable subject matter and are thus allowable. The undersigned representative thanks the Examiner for examining this application.

Should the Examiner believe that anything further is necessary in order to place the application in better condition for allowance, the Examiner is respectfully requested to contact the undersigned representative at the telephone number listed below.

No fees are believed due; however, the Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, to Deposit Account No. 50-0951.

Respectfully submitted,



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